

#### REMARKS

In response to the Official Action mailed September 24, 2001, Applicants amend their application and request reconsideration. In this Amendment claim 5 is cancelled so that claims 1-4 and 6-16 remain pending.

The Examiner requested that a prior art legend be added to Figures 36-45 and that change is proposed.

Claims 1-16 were rejected as anticipated by the prior art described in the application. This rejection is respectfully traversed.

In this Amendment, all claims are amended for clarity. In addition, the limitations of original claims 4 and 5 are added to the three independent claims, claims 1, 15, and 16, in a clarified form.

Claim 5 included a feature not disclosed by any of the prior art and therefore the rejection was erroneous with respect to at least claim 5. In reviewing the comments at pages 2 and 3 of the Official Action comparing the prior art structures to the claims, Applicants note that no reference is made to the limitation of claim 5. Applicants request that in the subsequent examination of this application, that all pending claims be considered, independently, since complete examination of the application is encompassed by the filing fee paid with patent application.

Claim 4 has been retained and amended. Amended claim 4 is supported by Figures 20-22 and the description of those figures in the specification.

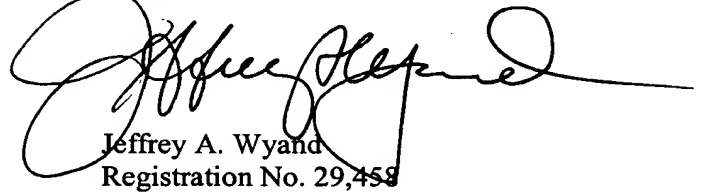
The rejection cannot be maintained as to any of the claims now pending. Reconsideration and withdrawal of the rejection are respectfully requested. In view of the error in the original examination with respect to the rejection for anticipation of claim 5, any

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new rejection based upon different prior art or a different legal ground should not be a final rejection.

Respectfully submitted,

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PATENT  
Attorney Docket No. 400388/TSI

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

HAMADA et al.

Application No. 09/425,630

Art Unit: 2855

Examiner: C. Dickens

Filed: October 22, 1999

For: FLOW RATE MEASURING  
DEVICE

AMENDMENTS TO CLAIMS MADE IN RESPONSE TO  
OFFICE ACTION DATED SEPTEMBER 24, 2001

*Amendments to existing claims:*

Cancel claim 5.

1. (Twice Amended) A flow rate measuring device comprising:  
a post located in a fluid passage for passing a fluid flow and extending across a part of the fluid flow;  
a measuring duct in the post, the measuring duct having  
a fluid introduction port with an elongated shape confronting a flow direction  
of the fluid flow and,  
a first pair of generally smooth, converging inner wall surfaces, narrowing  
toward a downstream direction of the fluid flow, each of the smooth inner wall surfaces  
having a profile, in a cross-section parallel to the fluid flow direction and parallel to the post,  
including an inflection point, and  
a single hole downstream of the fluid introduction port for exiting of the fluid  
flow from the measuring duct; and  
a flow rate detector located in the measuring duct ~~wherein the measuring duct has a~~  
~~fluid introduction port with an elongated shape and confronting a flow direction of the flow,~~  
~~the measuring duct having at least one portion located between the fluid introduction port and~~  
~~the flow rate detector substantially smoothly narrowing toward a downstream direction of the~~  
~~flow in a longitudinal direction of the elongated shape, and the measuring duct has a single~~  
~~hole in the at least one portion.~~

3. (Twice Amended) The device according to Claim 1, wherein the fluid introduction port has a length in the longitudinal direction and a width in a transverse direction, transverse to the longitudinal direction, the longitudinal length being ~~substantially~~ at least twice the width.

4. (Twice Amended) The device according to Claim 1, wherein the measuring duct ~~has an~~ includes a second pair of generally smooth converging inner wall surface surfaces, generally transverse to the first pair of inner wall surfaces, narrowing toward in the downstream direction so that at least a portion of an intersection between an imaginary, and having a curved profile in a plane perpendicular to the fluid introduction port and parallel to a longitudinal direction of the fluid introduction port, and the inner wall surface is a substantially smooth curve.

7. (Twice Amended) The device according to Claim 1, wherein the measuring duct narrows to at least a position where a flow rate detecting element, ~~as~~ of the flow rate detector, is located.

8. (Twice Amended) The device according to Claim 1, wherein the fluid introduction port has, in a plane perpendicular to the fluid flow, a curved shape closed curve shape.

9. (Twice Amended) The device according to Claim 1, wherein the measuring duct ~~has a portion~~ a second pair of inner wall surfaces, generally transverse to the first pair of inner wall surfaces, and extending from a location upstream of the flow rate detector to the flow rate detector substantially smoothly narrowed and narrowing toward the downstream direction, in a transverse direction of the fluid introduction port.

10. (Twice Amended) The device according to Claim 1, wherein the measuring duct ~~has a downstream wall end with~~ includes a notch at the single hole.

11. (Twice Amended) The device according to Claim 1, wherein the measuring duct ~~has at least a portion of~~ includes an outer wall surface that expands, at least in part, extends outwardly.

12. (Twice Amended) The device according to Claim 1, including projections located on the duct near the fluid introduction port and extending in an upstream direction.

13. (Twice Amended) The device according to Claim 12, wherein the fluid introduction port has a substantially rectangular shape in a plane transverse to the fluid flow, and the projections are located at at least one pair of ~~sides of~~ long sides and short sides of the fluid introduction port, the projections being ~~plate-shaped members in parallel to each other plates.~~

15. (Twice Amended) A flow rate measuring device comprising:  
a post located in a fluid passage for passing a fluid flow and extending across a part of the fluid flow;

a measuring duct in the post, the measuring duct having

a fluid introduction port with an elongated shape confronting a flow direction of the fluid flow, and

a first pair of generally smooth, converging inner wall surfaces, narrowing toward a downstream direction of the fluid flow, each of the smooth inner wall surfaces having a profile, in a cross-section parallel to the fluid flow direction and to the post, including an inflection point; and

~~a flow rate detector located in the measuring duct wherein the measuring duct has a fluid introduction port with an elongated shape and confronting a flow direction of the flow, the measuring duct having at least one portion located between a location upstream of the flow rate detector and the flow rate detector, substantially smoothly narrowing toward a downstream direction of the flow in a longitudinal direction of the elongated shape, and the flow rate detector comprises~~ comprising a substantially plate-shaped mounting member ~~substantially extending along the fluid flow direction,~~ substantially parallel to a longitudinal direction of the fluid introduction port, and a flow rate detection element on a main surface of the mounting member.

16. (Twice Amended) A flow rate measuring device comprising:  
a post located in a fluid passage for passing a fluid flow and extending across a part of the fluid flow;

a measuring duct in the post, the measuring duct having

a fluid introduction port with an elongated shape confronting a flow direction of the fluid flow and,

a first pair of generally smooth, converging inner wall surfaces, narrowing toward a downstream direction of the fluid flow, each of the smooth inner wall surfaces

having a profile, in a cross-section parallel to the fluid flow direction and to the post,  
including an inflection point, and

a single hole downstream of the fluid introduction port for exiting of the fluid  
flow from the measuring duct; and

a flow rate detector located in the measuring duct ~~wherein the measuring duct has a fluid introduction port with an elongated shape and confronting a flow direction of the flow, the measuring duct having at least one portion located between the fluid introduction port and the flow rate detector substantially smoothly narrowing toward a downstream direction of the flow in a longitudinal direction of the elongated shape, the measuring duct has a single hole in the at least one portion, and the flow rate detector comprises~~ comprising a substantially plate-shaped mounting member ~~substantially extending along the fluid flow direction,~~ substantially parallel to a longitudinal direction of the fluid introduction port, and a flow rate detection element on a main surface of the mounting member.